



## Remarks

Applicants hereby petition the Examiner to correct the filing date and date-in discrepancy pursuant to 37 CFR 1.10(c) before examining the application.

Applicants further state that the correct filing date for application serial number 10/057,179 is January 24, 2002.

As evidence, please see the attached a copy of the Express Mail, Post Office to Addressee receipt numbered EV 004299877 US and dated January 24, 2002. Applicants direct the Examiner's attention to the handwriting on the enclosed Express Mail receipt. Specifically, the applicants ask the Examiner to compare the third digit entered by hand in the "Date In" box in the upper, left-hand corner of the Express Mail receipt, to the last digit entered by hand in the "Total Postage & Fees" box in the center of the Express Mail receipt. Upon comparing the two, it can be seen that the digit entered in the "Date In" box is a four (4) with a closed top, or nearly so, written with a single pen stroke. However, the digit in the "Total Postage & Fees" box is clearly a five (5), written with two separate pen strokes, the upper, horizontal line of the five (5) being distinct and separate from the rest of the digit.

The Express Mail receipt tracking number matches those on the application transmittal letter and cover letter for the application number 10/057,179, copies of which are also enclosed.

As further evidence, applicants enclose a copy showing both sides of a return postcard filed with the application. It is the practice of the applicants' representative to apply postage to the return postcard just prior to sealing the Express mail package and depositing it in a United States Postal Service Express Mail Box located at 1 Kendall Square, Cambridge, MA. The date the postage was applied to the return postcard is January 24, 2002.

Further still, Applicant's enclose a copy of the log kept by applicants' representative, indicating a mailing date of January 24, 2002 for Express Mail package No. EV 004299877 US and further identified as attorney docket number MH-5091, which is the attorney docket number for application number 10/057,179.

Applicants state that this petition falls under 37 CFR 1.10(c) rather than 37 CFR 1.10(d) because the date on the Express Mail receipt was not entered incorrectly. Rather, it is very confusing and difficult to decipher.

Kindly correct the filing receipt to reflect the filing date of January 24, 2002.

Respectfully submitted,

Mitsubishi Electric Research Laboratories, Inc.

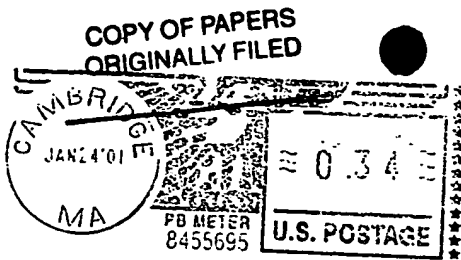
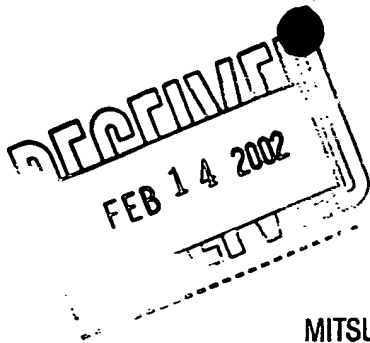
By 

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ATTN: A. CURTIS

24



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Expectation-Maximization-Based Channel Estimation  
Title: AND Signal Detection for Wireless Communication Systems  
Applicant: MA et al Filed: HEREWITH  
Application No. \_\_\_\_\_ Patent No. \_\_\_\_\_ Docket No. W4-5091  
Enclosed is the following:  
☒ Transmittal Letter in triplicate;  
☒ Application including Pgs. 1-24 of Spec.;  
25-30 of claims and pg. 31 of Abstract;  
☒ Declaration and Power of Attorney;  
☒ Informal/Formal Drawings  
2 Sheets of Figs. 1-7;  
☐ Letter to Chief Draftsman;  
☐ Amendment;  
☐ Information Disclosure Statement, Form 1449;  
\_\_\_\_ refs;  
☒ Assignment, Recordation Cover Sheet;  
Date Mailed: 1-24-02  
Date Due: \_\_\_\_\_  
Initials: ATC  
Express Mail Receipt No. EV 004299877 US

☐ Notice to File Missing Parts;  
☐ Petition for Extension of Time for  
\_\_\_\_ Months;  
☐ Issue Fee, PTO Form 85B&C;  
☐ \_\_\_\_ Year Maintenance Fee  
☐ Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Receipt Date & Application No.  
J1050 U.S. PTO  
10/057179  
01/25/02



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MH-5091

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"EXPRESS MAIL" mailing label number: EV 004299877 US.

Date of Deposit: 1-24-02

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[Signature]  
Signature of depositor

\* \* \*

TRANSMITTAL LETTER

The Assistant Commissioner for Patents  
Washington, D.C. 20231

ATTN: BOX PATENT APPLICATION

Sir:

Transmitted herewith for filing is the patent application  
of: Xiaoqiang Ma, Hisashi Kobayashi, Stuart c. Schwartz

FOR: Expectation-Maximization-Based Channel Estimation and  
Signal Detection for Wireless Communications Systems

Enclosed are:

- [31] pages of specification, claims and abstract
- [7] sheet of formal drawings
- [x] Declaration and Power of Attorney
- [X] Assignment of the application
- [ ] Information Disclosure Statement

The filing fee is calculated as follows:

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Name of person mailing paper or fee

Signature  
Andrew J. Curtin

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APPLICATION FOR UNITED STATES LETTERS PATENT

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Title: **Expectation-Maximization-Based Channel Estimation and Signal Detection for Wireless Communications Systems**

Inventors:      Xiaoqiang Ma  
                 Hisashi Kobayashi  
                 Stuart C. Schwartz  
                 Daqing Gu  
                 Jinyun Zhang

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PROJECT NAME

NOTEBOOK NO.

DATE	DOCKET #	DESCRIPTION	TO	VIA
12/28/01	VG0135	ISSUE FEE	PTO	MAIL
1/1/02			AL	MAIL
1/14/02	MH-5093	APPLICATION	PTO	EXPRESS MAIL
			MH-5093	EV004299625US
1/14/02	VG0-111,133,139	DRAWINGS	AL	MAIL
1/15/02	MH-5090	APPLICATION	PTO	EXPRESS MAIL
			MH-5093	EV004299639US
1/15/02	MERL-1287	INVENTOR ADDRESS	SOGA	AIR MAIL
1/18/02	MERL-1277	EPO RESPONSE	SOGA	AIR MAIL
1/18/02	ATL-024	FINAL RET. RESPONSE	PTO	MAIL
1/21/02	CR-1359	APPLICATION	USPTO	EXPRESS MAIL
				EV004299885US
1/21/02	MH-5086	APPLICATION	USPTO	EXPRESS MAIL
				EV004299642US
1/23/02	CR-1301, 1314, 1322, 1326 1329, 1331, 1333, 1335, 1336 1337, 1338, MERL 1250	FOREIGN FILING	MEICO	FED EX 400-27214235
1/23/02	VG0-122, 123, 129, 138	OFFICE ACTIONS	AL	FED EX 346 7440925
1/24/02	CR-1317, 1320	FOREIGN FILING	MEICO	FED EX 400-27219323
1/25/02	MH-5091	APPLICATION	PTO	EXPRESS MAIL
1/31/02				EV004299877US
1/31/02	CR-1320	CERT COPY REQUEST	PTO	MAIL
1/31/02	MH-5062	CERT COPY REQUEST	PTO	MAIL
1/31/02	MH-5063	CERT COPY REQUEST	PTO	MAIL
SIGNATURE			DATE	19
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/057,179	<del>01/25/2002</del> 01/24/2002	2681	740	MH-5091	7	20	2

CONFIRMATION NO. 5294

 Patent Department  
 Mitsubishi Electric Research Laboratories, Inc.  
 201 Broadway  
 Cambridge, MA 02139

## FILING RECEIPT



\*OC00000007516221\*

Date Mailed: 02/22/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

 Xiaoqiang Ma, Princeton, NJ;  
 Hisashi Kobayashi, Princeton, NJ;  
 Stuart C. Schwartz, Princeton, NJ;  
 Daqing Gu, Morris Plains, NJ;  
 Jinyun Zhang, New Providence, NJ;

## Domestic Priority data as claimed by applicant

## Foreign Applications

If Required, Foreign Filing License Granted 02/21/2002

Projected Publication Date: To Be Determined - pending completion of Corrected Papers

Non-Publication Request: No

Early Publication Request: No

## Title

 Expectation-maximization-based channel estimation and signal detection for wireless  
 communications systems

## Preliminary Class

455

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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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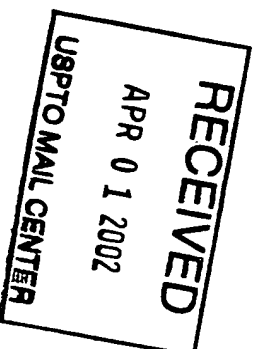
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